

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A vector ~~for gene therapy~~ comprising ~~an a~~ mammalian cell expression vector ~~for mammalian cells~~ and a nucleic acid ~~coding for~~ encoding a fusion protein of ~~glucagon C-terminal side 19-29 amino acid peptide region~~ comprising a first peptide that has the amino acid sequence shown in SEQ ID NO: 1 and a ~~desired protein region~~ which should be produced in the body, which vector can produce said fusion protein in the mammalian cells second peptide, wherein said fusion protein can be expressed in a mammal or mammalian cells.

2. (Currently Amended) The vector according to claim 1, wherein said ~~glucagon C-terminal side 19-29 amino acid peptide region~~ first peptide that has the amino acid sequence shown in SEQ ID NO: 1 is ligated to the C-terminal of said ~~desired protein region~~ second peptide.

3. (Currently Amended) The vector according to claim 1 or 2, wherein said ~~desired protein~~ second peptide is a cytokine, a fusion protein comprising a cytokine and a constant region of immunoglobulin ligated to said cytokine, a growth factor, a hormone or a cell adhesion factor, or a receptor thereof.

4. (Original) The vector according to claim 3, wherein said cytokine or the receptor thereof is selected from the group consisting of interferons and receptors thereof, CTLA4, interleukins and receptors thereof.

5. (Currently Amended) A method ~~for gene therapy~~ comprising:
administering an effective amount of said vector ~~for gene therapy~~ according to claim 1 to
[[a]] ~~said mammal or cultured mammalian cells, in which expression of~~ in order to express said
fusion protein in a mammal, the body or in the cultured mammalian cells is desired wherein said
vector is (1) administered directly to a mammal or (2) is integrated *in vitro* into mammalian cells;
and
then said cells containing said vector are subsequently administered to said mammal.

6. (Currently Amended) The method according to claim 5, wherein said vector ~~for gene~~
~~therapy~~ is administered to a mammal.

7. (Withdrawn) Use of the vector for gene therapy according to claim 1 for the
production of a drug for gene therapy.

8. (Withdrawn) A method for quantifying a desired protein produced in the body or in
cultured cells by expression of said vector for gene therapy, comprising quantifying, by
immunoassay, said glucagon C-terminal side 19-29 amino acid peptide region in a test sample

collected from a mammal or cultured mammalian cells to which said vector for gene therapy according to claim 1 was administered.

9. (Withdrawn) The method according to claim 8, wherein said test sample is collected from said mammal to which said vector for gene therapy was administered.

10. (Withdrawn) The method according to claim 9, wherein said test sample is a blood sample.

11. (Withdrawn) A label for labeling a desired protein produced by expression of an externally administered expression vector in the body of a mammal or in cultured mammalian cells, consisting essentially of glucagon C-terminal side 19-29 amino acid peptide.

12. (Withdrawn) A label for labeling a desired protein produced by expression of an externally administered expression vector in the body of a mammal, consisting essentially of glucagon C-terminal side 19-29 amino acid peptide.

13. (Withdrawn) A method for labeling a protein produced in the body or in cultured cells, comprising labeling a desired protein produced in the body or in cultured cells with glucagon C-terminal side 19-29 amino acid peptide by expressing said desired protein produced by expression of an externally administered expression vector in the body of a mammal or in cultured mammalian cells, as a fusion protein with said glucagon C-terminal side 19-29 amino acid peptide as a label.

14. (Withdrawn) The method according to claim 13, comprising labeling said desired protein produced in the body with glucagon C-terminal side 19-29 amino acid peptide by expressing said desired protein produced by expression of an externally administered expression vector in the body of a mammal, as a fusion protein with said glucagon C-terminal side 19-29 amino acid peptide as a label.

15. (Withdrawn) Use of glucagon C-terminal side 19-29 amino acid peptide as a label for a desired protein produced by expression of an externally administered expression vector in the body of a mammal or in cultured mammalian cells.

16. (Withdrawn) Use of glucagon C-terminal side 19-29 amino acid peptide as a label for a desired protein produced by expression of an externally administered expression vector in the body of a mammal.

17. (New) A vector comprising:
a mammalian cell expression vector, and
a nucleic acid encoding a fusion protein comprising a peptide that has the amino acid sequence shown in SEQ ID NO: 1 which is ligated to the C-terminus of a second peptide, wherein said second peptide is a cytokine, a fusion protein comprising a cytokine and a constant region of immunoglobulin ligated to said cytokine, a growth factor, a hormone, or a cell adhesion factor, or a receptor thereof, and

wherein said fusion protein can be expressed in a mammal or mammalian cells.

18. (New) A vector for mammalian expression comprising pCAGGS and a nucleotide sequence encoding a human IL8-glucagon¹⁹⁻²⁹ fusion protein having the nucleotide sequence shown in SEQ ID NO:8, wherein said human IL8-glucagon¹⁹⁻²⁹ fusion protein can be expressed in a mammal or mammalian cells.

19. (New) A method comprising:

administering an effective amount of said vector according to claim 17 or 18 to a mammal or cultured mammalian cells, and

expressing said second peptide in mammals or in cultured mammalian cells.

20. (New) The vector according to claim 1, wherein a nucleic acid encoding a fusion protein consists of a peptide that has the amino acid sequence shown in SEQ ID NO: 1 and a second protein region, wherein said fusion protein can be expressed in a mammal or mammalian cells.